



# Incubation Learning Model to Improve Procedure Text Writing Ability

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## ABSTRACT

Writing is an activity of expressing ideas or ideas through the painting of graphic symbols that are not only understood by the author but can also be understood by others as a form of indirect communication. A procedure text is a text that contains explanations or instructions about the steps or stages that are systematically arranged and must be taken to achieve the goal. The fact shows that students' writing skills are deficient, especially in learning to write procedure texts. Applying the incubation learning model is expected to improve the quality of learning to write complex procedure texts. The implementation of this research was carried out with two objectives. First, this study examines the significant difference in the ability to write procedural texts between students who received learning with the incubation learning model and those who received learning without the incubation learning model in class XI Mathematics and Natural Sciences 2 in a Senior High School in Lampung, Indonesia. Second, to test the effectiveness of the incubation learning model in learning to write procedural texts in class XI Mathematics and Natural Sciences 1 in a Senior High School in Lampung, Indonesia. This study used quasi-experimental research with a pretest-posttest control group design without randomization (Randomized Pretest-Posttest control group design). The sampling technique used is a purposive technique based on special considerations. The assessment results will be used as analysis data according to descriptive statistical procedures using the SPSS (Statistical Package for Social Science) computer program package for Windows Version 16. The results show that the incubation learning model effectively improves the ability to write procedural texts in class XI middle school students.

**Keywords:** *Incubation, Learning model, Procedural text writing skills.*

## 1. INTRODUCTION

Students have many difficulties in writing exposition texts. This lack of writing skills is caused by several factors: (1) students are less stimulated in thinking activities; (2) students are low in their knowledge; (3) students are low in thinking and writing skills; (4) students are slow in their ability to express ideas through writing; (5) students have low understanding in communication or dialogue activities; (6) students are minimal in group work; (7) students have not been able to explain the topic of the text in detail; (8) students have minimal understanding of good and correct grammar rules; (9) students do not participate actively in learning to write texts (Prayogi, 2015).

Procedure texts are essential to learn at all stages of life (Sistadewi, 2020). Procedure text is one of the texts that is very important to be studied for the continuity of daily life (Sistadewi, 2020). Or some students, writing is

indeed a problematic activity (Mertens, 2010). This happens because writing is the most complex and productive activity compared to the other three language skills, namely reading, listening, and speaking, and requires a long process to produce new writing (Mertens, 2010). Writing requires a form of ideas that appear and has a logistical sequence using a particular language or particular grammar or language techniques used so that it can describe, and present what is expressed clearly. Therefore, written skills can be obtained through many tasks and time. Writing is a continuous process (Agustina, 2004).

Based on Regulation of the Minister of Education and Culture of the Republic of Indonesia number 37 of 2018 concerning Core Competencies and Basic Competencies of the 2013 Curriculum for Elementary School/Madrasah, Ibtidaiyah Junior High School/Madrasah Tsanawiah High School/Madrasah Aliyah was published with the consideration that to meet

the basic needs of students in developing their abilities in the digital era, it is necessary to adding and integrating information content on basic competencies in the basic framework and structure of the 2013 curriculum at the primary and secondary education levels.

Regarding the types of texts in Indonesian language learning, there are various types of texts that students must master, namely news texts, review texts, explanatory texts, drama texts, persuasion texts, exposition texts, and procedure texts. In Curriculum 2013, procedural text learning is taught in class XI of Senior High School. This makes it a challenge for teachers to be able to teach procedural texts that require careful and critical thinking skills in writing them.

Writing is one of the basic skills used and fostered in educating students. In this sense, it can be used both as a learning tool and to persuade others (Graham, Gillespie, & McKeown, 2013). A text may need to be rewritten repeatedly to reach the desired level of writing (Kellogg, 2008). This shows that writing is a cognitive and metacognitive process (Flower & Hayes, 1984; Graham & Perin, 2007). Learners who experience this process not only have the opportunity to apply self-regulation to writing skills, but they can also improve their writing skills by compiling well-structured texts at the desired level (Cer, 2019).

Students need to improve their writing skills early in their academic life to ensure their future success. For this reason, they should be taught contextual, structural, and educational (Sever, 2011; Cer, 2019) principles of writing that focus on learning models, taking into account students' writing skills and proficiency. Recent research shows that students who use the incubation learning model in writing focus more on linguistic elements, content, knowledge of task requirements, personal learning process, text, accuracy, and discourse features. This proves the need for variables such as selecting, organizing, and linking information (Hayes & Flower, 1980). Therefore, these variables must be prioritized to improve writing skills (Cer, 2019).

The concept of writing to study or writing in the curriculum has been reported to positively impact learning in various educational settings, from elementary school to college classrooms. However, the results are mixed (Manian, 2020). Writing is a productive skill by using writing. Writing can be said to be the most challenging language skill among other types of language skills. This is because writing is not just copying words and sentences; but also developing and expressing thoughts in an orderly writing structure (Mulyati & Cahyani, 2007; He, 2019). Writing includes making texts that always use designs/ideas or abstracted meanings from concrete events. In making texts, always pay attention to the sounds of letters, words, and punctuation marks, and revise themselves or others. Most revisions

were made to correct texts with erroneous meanings, spellings, capital letters, and periods.

Writing effectively is an essential part of progress in an academic context (Rosenfeld, Courtney, & Fowles, 2004; Rosenfeld, Leung, & Oltman, 2001; Shabani & Panahi, 2020). Effective writing involves making meaning; writers must use appropriate vocabulary and grammar to express content, engage readers, and organize coherent sentences in response to specific situational and cultural contexts (Schleppegrell, 2003; Zhang, 2019). The ultimate goal of writing is to project the author as a member of the supported English community (Hyland, 2002, 2015).

Improving writing relies on knowledge, skills, and technical and strategy-based practice (Deane et al., 2008). Therefore, individuals must first have comprehensive knowledge to use language effectively and fluently in the writing process (McCutchen, 2000) because knowledge accumulation plays a crucial role in creating and improving writing (Levy & Ransdell, 2013; Saddler & Graham, 2007). Apart from accumulating knowledge, individuals must be able to write to produce writing in an effective format (Cindy, Monroe, & Troia, 2007). Individuals with low levels of writing ability focus more on spelling, punctuation, and grammar. In contrast, individuals with high levels of writing skills focus more on organizational, stylistic, and contextual aspects of writing (Schoonen & de Glopper, 1996). Therefore, writing skills are essential in the writing process. Finally, in addition to all these variables, individuals need specific strategies in planning, designing, organizing, revising, and evaluating writing.

Especially after the communicative writing movement found its proper position in language teaching (Rashtchi & Keyvanfar, 2010), writing is a difficult skill requiring students to use related skills and sub-skills. To write an English essay, students need knowledge of grammar and terminology on related themes (Beiki, Gharagozloo, & Raissi, 2020; Fitz & Glasgow, 2009). The ability to write efficiently is essential in several academic environments. Further, it develops students' writing capacity in various parts of the world. The world occupies a significant portion (Ghoorchaei, Tavakoli, & Nejad, 2010).

Jiménez (2017) revealed that learning to write is a problem that worries parents, teachers, students, and researchers. Writing is an important activity that allows students to express their knowledge and thoughts and participate in most academic activities. These complex activities involve many processes, and students must invest much time in learning and development. A writing model has been proposed for developing child writers. From the statement by Jiménez (2017) it was revealed that writing skills are indeed challenging to master. Many researchers seriously discuss the difficulties of writing and try to improve the writing skills of the students they

study (Berninger, 1994; He, 2019; Yang, Li, & Li, 2020; van Rijt, van den Broek, & De Maeyer, 2021). Therefore, how vital writing skill is; with writing skills, a person will be easy to express ideas in written form, so with good writing skills, readers will easily know and understand what is conveyed by the author. Thus, the importance of writing skills, apart from having to be mastered by students, in completing their studies, such as a postgraduate doctoral degree in dissertation writing, a postgraduate master's degree in thesis writing, and undergraduate thesis writing. Thus, writing skills must also be mastered by all students, including State Senior High School students in Lampung. In fact, students' writing skills are deficient, especially in the ability to write procedural texts. shows the average value of language skills obtained from the survey results (State High School 1 Meraksaaji).

Table 1 shows that writing (especially procedural texts) for class XI-1 Senior High School 1 Meraksaaji Tulangbawang Lampung Indonesia is still not optimal. This is indicated by the number of student scores who have not reached the minimum completeness criteria limit, which is 75. Data on the average value of language skills from the competency test for Indonesian subjects for class XI-1 students of State Senior High School 1 Meraksaaji Tulangbawang Lampung Indonesia for the 2021 academic year /2022 showed that out of 30 students, the average score of writing ability was 61, 66. Only 5 students (16, 67%) scored 75, while 25 (83, 33%) scored below the criteria limit. A predetermined minimum. Listening, speaking, and reading skills are pretty good.

Seeing these facts, it can be said that the writing ability of students in class XI-1 Senior High School Negeri in Tulangbawang Lampung Indonesia is not good or has not exceeded the minimum completeness criteria that have been determined. This is because most students have not been able to explain something, the diction used is still not appropriate and does not vary, and many errors are found in the use of spelling and sentence structure that is not clear.

**Table 1.** Average language skills score

No.	Skills	Average	Completeness Criteria Minimum 75		Number of Students
			Pass the Minimum Completeness Criteria	Under Minimum Completeness Criteria	
1	Writing	61,66	5 students (16, 67%)	25 students (83, 33%)	30
2	Listening	79,82	26 students (86, 67%)	4 students (13, 33%)	30
3	Speaking	71,70	19 students (63, 33%)	11 students (36, 67%)	30
4	Reading	76,94	22 students (73, 33%)	8 students (26, 67%)	30

Previous studies improved the ability to write procedural texts with the pair-check learning model. Simatupang (2020) conveyed that the study's results showed that the students' writing ability in the first cycle of the student's test average score was 74, so it was included in the incomplete category. Furthermore, in the second cycle the average score of the student's test was 84, so learning completeness was included in the complete category. Based on these data, it can be concluded that pair checks learning can improve students' writing abilities. Another study regarding using the cooperative script learning model on writing procedural text skills. Hasmi and Pohan (2021) said that the results showed that there was a significant difference between the results of learning to write procedural texts between the cooperative script learning model and the conventional method with a Tcount greater than Ttable ( $2.562 > 1.684$ ). In conclusion, the learning outcomes of the experimental class students who were taught using the Cooperative Script learning model were better than those of the control class students who were taught using conventional methods.

Still, regarding procedure texts, the problem-based learning demonstration method for improving Wahyuni's procedural text writing skills, this study was conducted by Yuliawati and Endang (2020), who said that the improvement of the recorded process was based on the role of teachers and students in learning. The emergence of a positive response marks this through the cooperative and enthusiastic attitude shown by students and conducive learning conditions. Process improvement has a positive impact on increasing yields. Improved results can be seen from the increase in student text product scores in cycle I to cycle II. The average score at the time of pre-action was 68.14, the average in the first cycle was 68.57, and the average in the second cycle was 80.64. The increase in the average score from pre-action to cycle II was 12.05. Other research differences in the ability to write procedural texts before and after using Google Classroom Media for Class XI students at Senior High School Negeri 6 Bengkulu City (Kenedi, Gumono, & Suryadi, 2020). Conveying that the results of the study indicate that the ability to write procedure texts before using Google Classroom is 25.14 in the high category and after using Google Classroom is 35.37 in the very high category. Based on the results of the t-test analysis, it is stated that there are differences in the ability to write procedure texts before and after using Google Classroom media for students of class XI Social Science Senior High School Negeri 6 Bengkulu City. The value obtained is significant (2-tailed), which is 0.00, and the t-value is seen to count as smaller: -20,858 than the t table value of -2.03.

The implementation of this research was carried out for two purposes. First, this study examines the significant difference in the ability to write procedural texts between students who received learning with the

incubation learning model and those who received learning without the incubation learning model in class XI Mathematics and Natural Sciences 2 Senior High School Negeri 1 Meraksaaji Tulangbawang Lampung. Second, to test the effectiveness of the incubation learning model in learning to write procedural texts in class XI Mathematics and Natural Sciences 1 Senior High School Negeri 1 Meraksaaji Tulangbawang Lampung.

## 2. LITERATURE REVIEW

### 2.1. Procedure Text

Procedure text is a text that explains the complete, clear, and detailed steps on how to do something (Kosasih, 2013; 2016; Lestari, Dian, & Sudrajat, 2018). Procedure text is a text that aims to provide information to readers or listeners about how to make something or do something (Anderson & Anderson, 2003; Mahsun, 2014; Yulia & Irwan, 2019). By reading procedural texts, readers can find out the steps to make or do something correctly to avoid procedural errors (Priyatni, 2014; Suherli, Suyarman, Septiaji, & Istiqomah, 2017). Another definition of complex procedure text is also described in a textbook published by the Ministry of Education and Culture, a procedure text is a text that contains steps or stages that must be taken to achieve goals (Kemendikbud, 2013). One of the early cognitive skills children develop is the ability to sequence (Knapp & Watkins, 2005). The structure of the procedure text is divided into the formulation of objectives (introduction), discussion steps, and closing (Kosasih, 2016).

From some understanding that has been about the text, it can be said that the procedure text is a text that contains the steps to make or do something completely, and everything with a specific purpose. So, it is important that we study the procedure text of our daily life. This can make it easier for us to make / do something easy, so that what we want will be easily achieved.

### 2.2. Incubation Model

The incubation learning model is an effective learning model in all matters of discussion with a creative thinking process. In the book *The Model Incubation Teaching: Getting beyond the Aha!* Torrance and Safter challenge teachers to become great teachers by using the incubation learning model. Torrance and Safter, (1990 p. 4) reveal that the incubation model is a model developed to “make teaching more effective in all subjects, at any age level with any teaching method”.

The incubation model is a very important component, but sometimes this component of the creative thinking process is neglected. (Wallas, 1926; Csikszentmihalyi, 1996; Segal, 2004; Ritter & Dijksterhuis, 2014; Hines, Catalana, & Anderson, 2019). In particular, in the context

of the nature of the incubation learning model, Starko (2017) in his research said that incubation is the center of the creative process; this is a time where content seeps deep into students' lives, providing nutrition for new and original ideas to emerge. Unfortunately, most teaching in gifted education emphasizes the creative product, and ignores the creative process as a whole. Emphasis is often placed on creative closing activities such as writing original songs or poems, or ideation strategies such as scampering and brainstorming. The result is often the inclusion of “crazy ideas” that are rarely used by teachers and students. While this technique is useful for creative thinking, neglecting an important stage of the creative process is providing creative thinking strategies without any guidance on how to use them.

### 2.3. Incubation Model Procedure

#### 2.3.1. Procedure Text

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### 2.3.3. Incubation Model Procedure

The incubation learning model procedure has three stages, namely stage I, increasing anticipation; stage II, deepening expectations; and stage III, expanding learning (Czorny, 2019; Lesswing, 2014; Murdock & Keller-Mathers, 2008; Torrance, 1979; Torrance & Safter, 1999; Worwood, 2011).

In more detail, stage I consist of creating a desire to know, increasing anticipation and expectation, gaining attention, arousing curiosity, tickling the imagination, and providing goals and motivation. While in stage II, for example, digging deeper into learning, double searching, listening to Smells, listening/talking to cats who crossed out mistakes, cutting holes for invisibility, taking shortcuts, went into deep water). Stage III consists, for exemple owning a ball, singing alone, building sandcastles, plugging in the sun, and shaking hands with tomorrow. The advantages of the stages of the incubation learning model are conveyed by Worwood (2011) who said that the incubation model is described in Figure 1.

The incubation teaching model can be used with both gifted and non-gifted children, as well as all children in a typical classroom. The curiosity inherent in all children motivates them to think about what they have learned, to study a topic by asking questions and experimenting, and finally, using what they have learned. The incubation model can be applied to all learning. This model has three stages that must be applied in the learning process, namely the first stage of heightening anticipation (increasing anticipation), the second stage of deepening understanding (deepening expectations), and the third

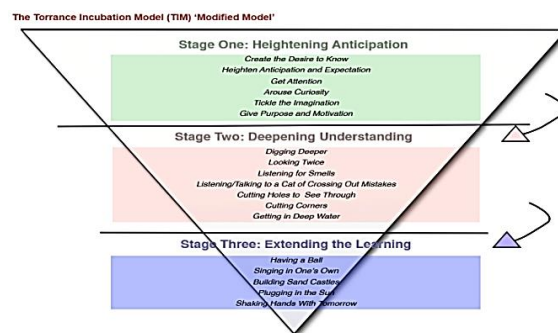


Figure 1 Overview of the stages of the incubation learning model (Worwood, 2011).

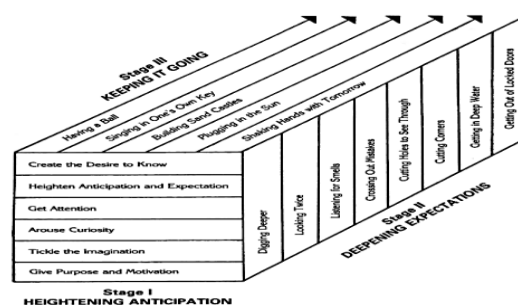


Figure 2 Incubation learning model.

stage of extending the learning/expanding learning (Worwood, 2011).

The incubation model inspires the creative process from start to finish. As depicted in Figure 1, the stages of the model build on each other and encourage students to continue learning outside of the classroom. Stage 1, Increase Anticipation, is intended to arouse curiosity and instill a desire to learn. In Stage 2, Deep Expectation, students immerse themselves into practice with newfound information, dig deeper and engage in learning through various creative thinking strategies. As expectations deepen, students discover new questions and begin to see the connection between content and their daily lives. Rather than reaching conclusions about what has been learned, students often leave the classroom feeling dissatisfied, looking for more. Thus, deepening expectations naturally lead to stage 3. This stage embodies the incubation stage of the creative process. New ideas “permeate” when students learn outside the classroom, looking for connections between content and ideas or events from past experiences, current problems, and future images (Hines et al., 2019). The original image of the incubation learning model is as shown in Figure 2.

### 2.3.4. Incubation Learning Model Syntax

The following are the syntaxes of the incubation learning model that have been adapted to the learning conditions in Indonesia.

#### Stage 1: Increase Anticipation

- 1) Teachers and students increase the anticipation of bad things not to be owned by students, and increase good expectations.
- 2) Students get attention from the teacher.
- 3) The teacher gives light questions that lead to the topic to be studied, and then conveys the topic to be discussed.
- 4) The teacher conveys a picture of the success / success of people who are engaged in the field or topic to be studied.
- 5) The teacher conveys the learning objectives and motivation.

#### Stage 2: Deepening Hope

- 1) Students analyze by reading texts related to the topic to find information that is being studied intensely.
- 2) Students evaluate by reading again or reading other examples.
- 3) Students consider in doing the tasks they complete by combining (synthesizing) the use of one or more senses.
- 4) Students conclude their work, interact with the material, form arguments in a text and then correct, correct the irrelevant ones.
- 5) Each group presents, discusses, and clarifies their work, then the other groups are asked to criticize, and direct.
- 6) The results of group work are pasted, other groups take turns judging.
- 7) Students do the assignments given by the teacher.

#### Stage 3: Keeping It Running

- 1) Teachers and students create humor, laughter, and/or fantasies related to learning, so that students do not experience boredom and remain involved in the continuous learning process.
- 2) Some students were asked to reveal important information that they had worked on in the independent task, other students were asked to provide responses.
- 3) The teacher reinforces that the results of the text that students have made can be used as knowledge/actions/solutions in the future. Together with students, the teacher reflects/concludes learning.

### 3. METHOD

This study uses a quasi-experimental type of research with a pretest-posttest control group design, without randomization (Rondomized Pretest-Posttest control group design). The treatment effect is calculated through the analysis of differences between posttest and pretest data in the experimental and control classes (Fraenkel, Wallen, & Hyun, 2012; Sudjana & Ibrahim, 1989). The application of this research is described in the Table 2.

The population of this study was students of Senior High School Negeri 1 Meraksaaji Tulangbawang Lampung who carried out writing lessons. The sampling technique used is a purposive technique based on special considerations. In this study, the sample was selected based on the research objectives' suitability, so the class XI Mathematics and Natural Sciences 1 students were designated as samples for the study. In addition, the incubation learning model that will be tested has relevance to the needs of students in learning to write. Class XI Mathematics and Natural Sciences 1 has 30 students, and class XI Mathematics and Natural Sciences 2 has 30 students.

Data collection techniques used tests to measure students' ability to write complex procedure texts before using the incubation learning model and students' ability to write complex procedure texts after receiving the incubation learning model and without using the incubation learning model (direct strategy). The data analysis technique begins with verification and data management; after the data is declared complete and meets the analysis requirements, the analysis activities are carried out. Data that is declared complete is coded, then the essay results are assessed or measured based on the exposition text assessment instrument. The data from the assessment will be used as analysis data according to descriptive statistical procedures using a computer program package SPSS (Statistical Package for Social Science) for Windows Version 16.

**Table 2** Application of Research

Class	Pretest	Treatment	Posttest
XI MIA 1	Y <sub>1</sub>	X <sub>1</sub>	Y <sub>2</sub>
XI MIA 2	Y <sub>1</sub>	X <sub>2</sub>	Y <sub>2</sub>

*Note.*

XI MIA 1: experimental class

XI MIA 2: control class

X<sub>1</sub>: learning with incubation learning model

X<sub>2</sub>: learning without incubation learning model

Y<sub>1</sub>: students' writing ability test before learning treatment

Y<sub>2</sub>: students' writing ability test after learning treatment

## 4. RESULT AND DISCUSSION

### 4.1. Results

The implementation of this research was carried out for two purposes. First, this study examines the significant differences in the ability to write procedural texts between students who received learning with the incubation learning model and those who received learning without the incubation learning model in class XI Mathematics and Natural Sciences 2 Senior High School Negeri 1 Meraksaaji Tulangbawang Lampung. Second, to test the effectiveness of the incubation learning model in learning to write procedural texts in class XI Mathematics and Natural Sciences 1 Senior High School Negeri 1 Meraksaaji Tulangbawang Lampung.

The results of this study in the form of data that researchers have obtained. The data in this study, namely pre-test, post-test, and observation data in the experimental and control classes, wrote procedure text. Pre-test and post-test data are research data on the results of students' procedural texts between before and after the writing learning treatment is carried out. The data from the text is the result of assessing (scores) student texts based on aspects submitted by the Ministry of Education and Culture of the Republic of Indonesia (2014, pp. 192-193), which conveys the evaluation format of procedure texts in the form of “(1) content, (2) text structure, (3) vocabulary, (4) sentences, and (5) mechanics”. While the observation data is the result of observing the performance of teachers and students in learning in the classroom.

#### 4.1.1. Pretest results

The comparison of pretest results both experiment and control' class is shown in Table 3.

a) experimental class: aspect (1) content with a total value of = 573; with an average value of  $r = 19.11$  (2) text structure with a total value of = 392; with an average value of  $r = 13.08$  (3) vocabulary with a total value of = 355; with an average value of  $r = 11.83$  (4) sentences with a total value of = 380; with an average value of  $r = 12.67$  and (5) mechanics with a total value of = 134; with an average value of  $r = 6.69$ . Total score = 1834; and the average  $r = 63.39$ ;

b) aspect control class (1) content with a total value of = 608; with an average value of  $r = 20.28$  (2) text structure with a total value of = 385; with an average value of  $r = 12.83$  (3) vocabulary with a total value of = 355; with an average value of  $r = 11.83$  (4) sentences with a total value of = 380; with an average value of  $r = 12.66$  and (5) mechanical with a total value of = 198; with an average value of  $r = 6.61$ . Total score = 1926; and the average value of  $r = 64.11$ .

#### 4.1.2. Posttest results

The comparison of posttest results both experiment and control' class is shown in Table 4. a) experimental class: aspect (1) content with a total value of = 695; with an average value of  $r = 23.17$  (2) text structure with a total value of = 489; with an average value of  $r = 16.31$  (3) vocabulary with a total value of = 454; with an average value of  $r = 15.14$  (4) sentences with a total value of = 470; with an average value of  $r = 15.67$  and (5) mechanical with a total value of = 211; with an average value of  $r = 7.03$  (6) total score = 2319; with an average value of  $r = 77.30$ ;

b) aspect control class (1) content with a total value of = 673; with an average value of  $r = 22.44$  (2) text structure with a total value of = 459; with an average value of  $r = 15.31$  (3) vocabulary with a total value of = 425; with an average value of  $r = 14.17$  (4) sentences with a total value of = 446; with an average value of  $r = 14.86$  and (5) mechanical with a total value of = 208; with an average value of  $r = 6.94$  (6) total score = 2211; with an average value of  $r = 73.70$ .

Based on the pre-test and post-test data management, writing procedure text was carried out through the SPSS for Windows Version 16 program, and it turned out that  $t > t_{0.99}$  (84) with a significant level of  $\alpha = 1\%$ . Thus it can be explained that the experimental class average parameter is greater than the control class average parameter, meaning that there is a difference in the ability to write procedure text between before students use the incubation learning model and students who have not

**Table 3.** Comparison of pretest scores for experimental class and control class

Data	Score Range						
		1	2	3	4	5	6
Experiment Class	Σ	573	392	355	380	134	1834
	R	19,11	13,08	11,83	12,67	6,69	63,39
Control Class	Σ	608	385	355	380	198	1926
	R	20,28	12,83	11,83	12,66	6,61	64,11

**Table 4.** Comparison of post-test scores for experimental class and control class

Data	Score Range						
		1	2	3	4	5	6
Experiment Class	Σ	695	489	454	470	211	2319
	R	23,17	16,31	15,14	15,67	7,03	77,30
Control Class	Σ	673	459	425	446	208	2211
	R	22,44	15,31	14,17	14,86	6,94	73,70

used the incubation learning model in learning to write procedure text in class XI Mathematics and Natural Sciences High School Negeri 1 Meraksaaji Tulang Bawang Lampung. Thus it can be said that the ability to write procedure texts after students use the incubation learning model is higher than the ability to write it before students use the incubation learning model.

## 4.2. Discussion

### 4.2.1. Testing the significant difference in the ability to write procedural texts between students who received learning with the incubation learning model and students who received learning without the incubation learning model

The results showed differences in the ability to write procedural texts between students who received learning using the incubation learning model and those who did not learn using the incubation learning model. In other words, learning using the incubation learning model is more effective than conventional methods. In addition, using the incubation learning model can also affect other writing lessons, such as explanatory texts and other texts studied by students. On the other hand, Zubrzycki (2006) revealed in his research entitled "Increasing Creative Thinking at the Theater of Youth (TOY) Through Use of the Torrance Incubation Model". Creativity in children attending plays hosted by the Theater of Youth at the Allendale Theater in Buffalo, New York. The study also contains a program, "Creative Toy Adventures", which enables teachers to use more intentional creative thinking in their classrooms. This program is designed to attend to a play adapted from a book that students read in class.

Based on the results of data analysis that has been carried out, it can be said that learning to write procedure texts without using the incubation learning model in class XI Mathematics and Natural Sciences 1 (experimental class) with 30 students, obtained a total score of ( $\Sigma$ ) 1834 with an average score of 63, 39. Meanwhile, in class XI Mathematics and Natural Sciences 2 (control class), with 30 students, the total score was 1926, with an average score of 64.11. It can be said that the experimental and control classes' pretest scores have a balanced value.

Based on the results of the data analysis, it can be compared between the experimental and control classes. The students' ability to write procedure texts has increased. In the experimental class of the number of students 30 obtained with a total value of ( $\Sigma$ ) 2319 with an average value of 77.30. While in the control class, from 30 students, the total score ( $\Sigma$ ) was 2211 with an average value of 73.70. This proves that the incubation learning model affects increasing the ability to write procedural texts.

### 4.2.2. Testing the effectiveness of the incubation learning model in learning to write procedure texts

Based on the results of data analysis that has been carried out, it can be said that learning to write procedure texts using the incubation learning model affects student scores. This is evidenced by the influence of student scores in the experimental class; namely at the pretest time, the total score ( $\Sigma$ ) was 1834, with the average score of 63.39. After the learning process used the incubation learning model to improve the ability to write procedural texts, the students' scores increased at the post-test with a total score of ( $\Sigma$ ) 2319 with an average value of 77.30. This proves that the incubation learning model affects increasing the ability to write procedural texts. In addition, the incubation learning model effectively improves the ability to write procedural texts.

## 5. CONCLUSION

Based on the description of the results of the research and discussion, it can be concluded that there is a significant difference in the ability to write procedure texts for students who receive learning with the incubation learning model and those without the incubation learning model. This can be proven from the results which revealed differences in normality of the pre-test and post-test data in the control and experimental classes. In addition, the incubation learning model is very effectively used in learning to write procedure texts for class XI Mathematics and Natural Sciences 1 Senior High School Negeri 1 Meraksaaji Tulangbawang Lampung. This can be proven by the results of testing the normality of pretest and posttest data in the control class with the experimental class; the experimental class obtained a value greater than the control class. This proves that the incubation learning model is effective in learning to write procedure texts.

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